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ABSTRACT

Federal involvement in curriculum development has often been attended by failure to relate a specific curriculum to the total curriculum. The National Institute of Education (NIE) can have an important role in acting as a catalyst, coordinator, and financial supporter of curriculum development efforts, mainly by encouraging the establishment of mechanisms whereby curriculum development is responsive to the various constituencies having interest and concern. NIE can also sponsor and/or perform research needed to make decisions about curricular needs and innovations and disseminate information about both old and new curricula. In performing or sponsoring actual curriculum development, NIE should have a policy that is adaptive to the special circumstances surrounding any particular proposed endeavor. When needs have been properly ascertained, NIE should actively support developments in the "thin market" areas and proceed cautiously in the mass market areas. Diversity is generally to be preferred over uniformity to ensure that school people continue to have many options available. (Author/DS)

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ABSTRACT

In a generic sense, curriculum is the total set of learning experiences planned or prescribed for students throughout their school years. In its specific sense, it refers to some segment of learning experiences organized around a discipline, a skill, or a theme. Federal involvement in curriculum development has often been attended by failure to relate a specific curriculum to the total curriculum.

NIE can have an important role in acting as a catalyst, coordinator, and financial supporter of curriculum development efforts, mainly by encouraging the establishment of mechanisms (such as the curriculum commission) whereby curriculum development is responsive to the various constituencies having interest and concern. Such mechanisms should be strongly interdisciplinary.

NIE can also sponsor and/or perform research needed to make decisions about curricular needs and innovations, and disseminate, or assist in the dissemination of, information about both old and new curricula, especially information enabling practitioners, school administrators, and school boards to make wise choices about curricula.

In performing or sponsoring actual curriculum development, NIE should have a policy that is adaptive to the special circumstances surrounding any particular proposed endeavor. When the need has been properly ascertained, it should actively support developments in the "thin-market" areas. In mass-market areas, however, it should proceed cautiously, respecting the large efforts in curriculum development that are continuously under way in the educational establishment. Centralized and decentralized modes of operation both have their places, but diversity is generally to be preferred over uniformity, to ensure that school people continue to have many options available.

In the relatively few cases in which new curriculum development needs to be supported, preference should be given to organizations (e.g., regional laboratories) which can assemble an adequate and diversified work force, and arrange appropriate field trials.

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I am an educational psychologist who specializes in psychometrics and the psychology of language. During the years (1949-1967) that I was on the faculty of the Harvard Graduate School of Education, I had occasional contact with a variety of curriculum development projects, e.g., the PSSC, SMSG, BSSC, and Project Physics curricula. Through service on several committees of the College Entrance Examination Board I was involved particularly in problems of testing connected with some of these curricula. As the author of The Study of Language (Harvard University Press, 1953) and of many research reviews and studies on language learning, I have often been asked to serve as a consultant on the development and evaluation of curricula in reading, English language arts, and various foreign languages. I do not claim to be a specialist in curriculum development, however; whatever wisdom I can offer derives more from general familiarity with, and observation of, problems of education over a number of years, and from logical analysis of the issues, than from specific involvement in this area.

In all the background materials assembled for this exercise, two simple but important considerations seem to have been neglected or given short shrift: (1) that the word curriculum has both a generic and a specific meaning, and (2) that since curriculum is intimately related to educational objectives, decisions about curriculum are

dependent upon decisions about educational objectives, and upon the sources of that decision making.

In the generic sense, the curriculum is the total set of learning experiences planned and (to a large extent) prescribed for students (or particular groups of students) by those who decide on such matters. In its more specific meaning, a curriculum is some particular segment of those planned experiences that is organized around a particular branch of knowledge at some level of advancement, a particular set of skills, or a particular set of problems or ideas (e.g., on protection of the enviornment). A "curriculum" thus often refers to some specific "package" of instructional materials and procedures that has been put together by one or more experts, textbook writers, curriculum specialists, or educational practitioners (e.g., teachers).

A curriculum, whether in the generic or the specific sense, is (or should be) based on a set of educational objectives, i.e., the knowledges, skills, and (possibly) dispositions and attitudes that, according to some source of educational authority, students exposed to the curriculum are expected to acquire. The specificity and detail with which educational objectives are stated can vary enormously, all the way from broad terms like "ability to read," "ability to think," or "good citizenship" down to an explicit listing of specific items of desired knowledge or behavior. Certain classes of educational decision makers (school boards, parent bodies, and school administrators) tend to state objectives in general terms, while teachers, textbook writers, and curriculum specialists must be concerned with more detailed specifications, even if these specifications are not set out

in explicit form.

The ideas just presented are important in considering NIE's involvement in curriculum development. Past federal involvement in curriculum development has pertained mainly to curriculum in its specific sense, i.e., to particular curriculum "packages." But a curriculum package, or even a module, cannot be readily inserted into the total school curriculum without a consideration of its relation to other aspects of curriculum, and indeed to many kinds of broad questions, such as the kinds of students most likely to need it or benefit from it, the kinds of prior learnings those students are likely to have had, the kinds of subsequent experiences the package is designed to lead to, its possible overlaps with other curricular materials, and the degree to which its use may displace other desirable materials.

If NIE is to be in any way involved in curriculum development (whether merely through the funding of projects in the field or through direct "in-house" activities) it must take account of how new or proposed curricula may relate to the <u>total</u> school curriculum.

Furthermore, NIE must recognize and be responsive to the diverse sources of decision making concerning educational objectives and the curricula designed to achieve those objectives.

I believe the case could be made that most of the difficulties that have attended federal involvement in curriculum development can be traced to inadequate concern with the role of new curriculum packages in the total school curriculum and failure to take due account of the pluralism inherent in American education.

I hasten to say that I feel NIE can and should have an important role in curriculum development in American education.

At a minimum, NIE should have an organizational unit in which professional personnel would maintain cognizance of, and review, information on curriculum needs and developments.

NIE can, however, do much more than this. It should view its role as that of catalyst, coordinator, and source of financial support for the activities of those in various sectors of American education who have traditionally been concerned with problems of curriculum. But its activities should stop short of any suggestion that it aims to impose particular curricular directions upon the American educational system.

In order to balance the interests and desires of different constituencies, NIE may find it desirable to develop or invent mechanisms whereby curricular developments in American education can be orchestrated toward the common good. For example, one mechanism (not really new, but much underused in the last several decades) is the curriculum commission.[1] Not since the early 1950's, to my knowledge, has there been any major federal support or involvement with curriculum planning or specification that considers the <u>total</u> school curriculum.[2] Some of the problems engendered by the curricular developments of recent years might have been avoided if a broader base of educational opinion had been assembled prior to the initiation of projects like the PSSC and MACOS curricula. Those projects were spearheaded by certain charismatic and highly creative individuals and may have been developed without an adequate survey of actual desires of various publics and the needs of different student populations. Even the valuable work of

the National Council of Teachers of English's Commission on English[3] may have had inadequate impact because of a lack of coordination with other interested bodies and with school decision makers; in this case, there was no federal involvement, to be sure, but we have here an illustration of a development in which federal involvement of the right sort might have had a positive influence.

NIE would, I believe, be in a position to coordinate, to a greater extent than has been true in the past, the deliberations and activities of various academic, educational, and lay groups concerned with curriculum. It should, however, guard against the tendency to be responsive only to highly vocal and persuasive individuals and groups. It should make an effort to seek out all the various constituencies involved in curriculum decision-making and development, obtaining their participation in interdisciplinary conferences, inter-associational curriculum commissions, and the like. Where circumstances dictate, support and encouragement should reach down to regional, state, or local levels.

I would particularly favor support of inter-associational curriculum commissions. To be effective in their work, such commissions should involve various kinds of scholars and specialists (subject-matter experts, educational psychologists, educational philosophers, and professors of curriculum development) in more or less full-time efforts over considerable periods of time. Teachers and other educational practitioners should also be involved. My experience in visiting teachers' summer workshops suggests that there exist many such persons who can make valuable contributions to planning and carrying

out of curriculum projects. Curriculum commissions should be so constituted that they can adequately consider the implications of proposed curriculum developments for the total school curriculum. Educational psychologists are needed to give advice on the structuring of curricula in relation to principles of learning. For example, one of my experiences involved the finding that the SMSG mathematics curriculum could be made substantially more productive of learning when modified to include periodic practice and review of content covered.

NIE could play a particularly important role in supporting and (in some cases) actually performing the kind of research that is needed to make decisions about curricular needs and innovations. This research would concern such questions as: What are areas of strength and weakness in student achievement, on a national or regional basis?[4] What are the implications of new scientific and technological developments for curriculum revisions and innovations? What are the implications, if any, of manpower and labor-force changes for curriculum revision? What are the implications of scientific developments in educational psychology for methods of teaching, for the age- or grade-placement and ordering of curricular elements, and the like? What differential effects, if any, do particular curricula have on student progress? How can new curricula best be evaluated (formatively and/or summatively)?[5]

A prime example of one kind of educational research that should lie behind curriculum development decisions is the massive research effort that the Ontario Ministry of Education has been supporting over the last five years to evaluate so-called "French immersion" programs

designed to encourage a greater degree of bilingualism among English-speaking populations of Canada--programs operated principally in the primary schools, but also to some extent in the secondary schools.[6] The research addressed not only the question of how well the students learned French, but also the question of whether their progress in learning English-language skills (reading, writing, etc.) might be adversely affected. Although this example comes from outside the U. S., there are lessons to be learned from it. Problems of bilingual education in the U. S. would merit a similarly massive educational research effort.

In addition to supporting research underlying curriculum decisions, NIE could well have an important role in the dissemination of information about curricular developments. Regardless of whether NIE becomes heavily involved in supporting or performing curriculum development, the very diverse and diffuse efforts in curriculum development at national, regional, state, and local levels will undoubtedly continue, as they have for many years. But focused and easily accessible and available information about these developments is distributed by the private sector in a very haphazard fashion.[7]

I come now to questions about what role NIE might play in actual curriculum development. A clear implication of all the issues I have discussed is that NIE should have a highly flexible policy in this matter. Problems differ enormously from one area of the curriculum to another. Some areas, for example, are "mass market" areas, like elementary reading, while others, like the teaching of Indonesian, are definitely "thin-market." Some areas are much more controversial than

others. Some areas are already well supplied with materials, others less so.

It is very clear to me that NIE should actively support and encourage curriculum development in "thin-market" areas, whenever a need has been ascertained and certified by interested constituencies. The argument is obvious: support for such projects, and for their publication and dissemination, is unlikely to come from non-federal sources. A good precedent has been set, for example, by the useful support that the Office of Education gave to the development of teaching materials (grammars, dictionaries, etc.) in the "uncommon" foreign languages in the 1960's under Title VI of the NDEA. These materials continue to be used, even if by only small numbers of students, and no serious controversy has ever arisen, to my knowledge, about the federal role in their development.

In the mass-market areas, and in areas where there is much controversy about objectives and methods, NIE needs to proceed very cautiously and circumspectly. As I have already suggested, NIE must operate through mechanisms that will insure that the interests of various constituencies are taken into account, even if they cannot be easily resolved, and that curricular innovations are properly attuned to the needs of the total school curriculum.

Flexibility should be the watchword in making decisions about the various issues that arise in initiating and supporting curriculum development projects. For example, there is no one answer to the question of whether development should be on a centralized or a decentralized basis. Situations will arise in which centralized curriculum develop-

ment will be indicated, as where the market is thin or there are limited numbers of experts available to do the work. In other instances, as where regional needs differ or where there is no clear information as to how the best curriculum can be devised, a decentralized mode of operation would be advisable.

On the question of uniformity vs. diversity, I would come down strongly on the side of diversity. Not only is it desirable to cater to the needs of different regions, different ethnic and racial groups, different classifications of students, etc.; it is also desirable to insure that school people continue to have options among different curricula even when these curricula are ostensibly designed for the same or similar groups. There is too much danger that a single federally-supported curriculum might dominate the market unduly. Any given curriculum is almost inevitably based upon certain pedagogical assumptions, focused on certain content, slanted toward certain target populations, and shaped with a special style. Parallel but differently oriented curricula need to be available, and in some cases evaluated against each other. For example, during the 1960's some of the curricula developed with at least partial federal support were in the "commonly taught" foreign languages like French, Spanish, and German. Designed to meet "audiolingual" objectives, they provided a needed change from previous, more traditionally oriented programs. Recent advances in the theory of foreign language teaching, however, would suggest that these curricula are now to a degree outmoded; while they continue to have use for certain types of students, they give too much emphasis to drill and repetitive practice. There is now probably

a need to develop foreign language curricula that would take advantage of new methodology. Federal support for such curricula might be justified if the private sector is unable to perform the research necessary to optimize these curricula.

Let us assume that it has been determined, through appropriate mechanisms, that a need exists for a new curriculum in some particular area, and that appropriate specifications for this curriculum have been stated at least in general terms. Let us assume also that NIE has decided, with appropriate external advice, to support the development of such a curriculum. How is this new curriculum to be developed? Generally I believe preference should be given to some organization in the more or less private sector (e.g., a regional laboratory) that can assemble the necessary work force, to be comprised of not only a range of curriculum developers, writers, editors, educational researchers, etc., but also subject-matter scholars and practitioners. Both scholars and practitioners must become closely involved--the scholars to provide the intellectual backup for content and methodology, the practitioners to provide not only the fruits of their experience in teaching but also the necessary tryouts in practical school settings, with different target populations.

One of my experiences relates to a curriculum project in which it could be said that only lip service was paid to the involvement of scholars and practitioners. Most of the work was done by somewhat inexperienced, poorly qualified personnel in the organization, with only occasional opportunity for scholars and practitioners to provide advice and suggestions. Involvement of scholars would have been more

profitable if they had not merely been consulted for brief periods, but rather given protracted periods of employment. Likewise, the practitioners should have been directly employed on the project rather than being merely requested to try out materials on school time.

In summary, I feel that NIE definitely has an important and central role to play in curriculum development. It has at its command various kinds of resources that would not readily be available through other means--pools of experts, special information services, means of publication, etc., and above all, funding. It should, however, use these resources only in its role as servant to the various constituencies that are concerned with educational decision making and action. NIE should capitalize on its unique position of being capable of coordinating and balancing the interests and concerns of these various constituencies both inside and outside the federal government (including, incidentally, other federal agencies, congressional committees, etc.).

If NIE can do these things (as I believe it can) it can make a positive and needed contribution to American education, and win the public and legislative support that is necessary to enable it to continue and even expand its role.

Footnotes

[1]For historical perspective, see A. W. Foshay's article on Curriculum in the Encyclopedia of Educational Research, 4th edition (New York: Macmillan, 1969), or W. van Til's article, "What Should Be Taught and Learned through Secondary Education?" in Issues in Secondary Education, Seventy-Fifth Yearbook of the National Society for the Study of Education, Part II, 1976, pp. 178-213.

[2]Here I refer to two commissions organized primarily by the Russell Sage Foundation, but with partial federal support. The publica-

tions resulting from the activities of these commissions were the following: Nolan C. Kearney, Elementary School Objectives: A Report Prepared for the Mid-Century Committee on Outcomes in Elementary Education (New York: Russell Sage Foundation, 1953); Will French et al., Behavioral Goals of General Education in High School (New York: Russell Sage Foundation, 1957). It is my impression that these reports were not widely attended to by American educators, however, possibly because there was little coordinated impetus on the national level to promote their consideration.

[3]Commission on the English Curriculum, National Council of Teachers of English, The English Language Arts (New York: Appleton-Century-Crofts, 1952).

[4]The National Assessment of Educational Progress represents one example of such research, but its work could be extended in various ways to consider particular curriculum areas in finer detail. For example, there is need for further periodic surveys similar to those I have conducted in the assessment of student progress in foreign language study: John B. Carroll, The Foreign Language Attainments of Language Majors in the Senior Year: A Survey Conducted in U. S. Colleges and Universities (Cambridge: Harvard Graduate School of Education, 1967; ERIC Document Reproduction Service ED 013-343); John B. Carroll, The Teaching of French as a Foreign Language in Eight Countries (New York: Halsted Press, 1975).

[5]Possibly instructive in this regard is the experience of the International Association for the Evaluation of Educational Achievement (IEA) in assessing performance on items of science achievement tests in terms of teachers' ratings of whether their students had opportunity to learn the item content. See L. C. Comber and John P. Keeves, Science Education in Nineteen Countries (New York: Halsted Press, 1973).

[6]I happen to have served as a consultant, in connection with this research, to the Ministry of Education, Ontario.

[7]There is probably need for research on exactly what kind of information will be of maximal usefulness to educators, and on how this information should be disseminated to maximum effectiveness. Consideration should be given to ways of increasing the availability of "consumer-oriented" information on the strengths and weaknesses of different curricula and curriculum materials, and their appropriateness in different contexts and for different target groups of students.